

FIG. 1

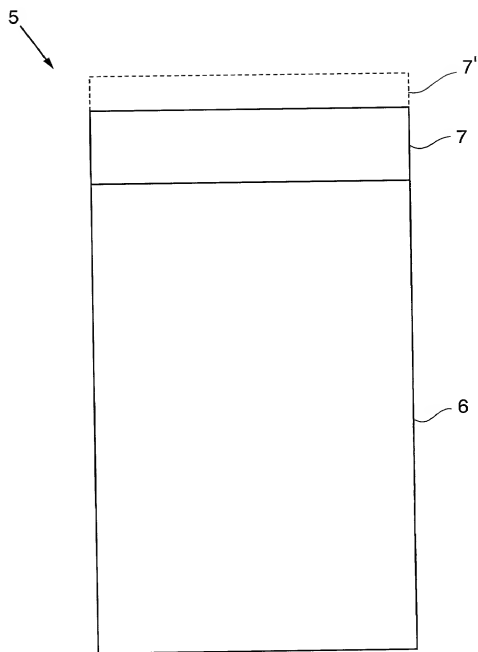
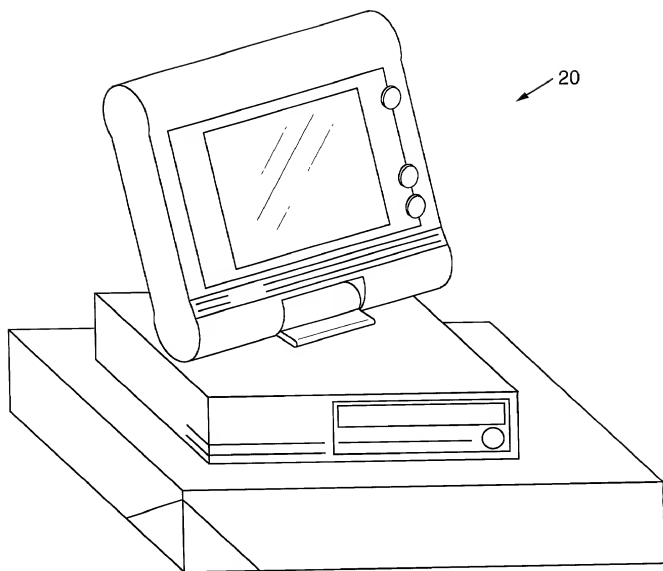


FIG. 2



**FIG. 3**

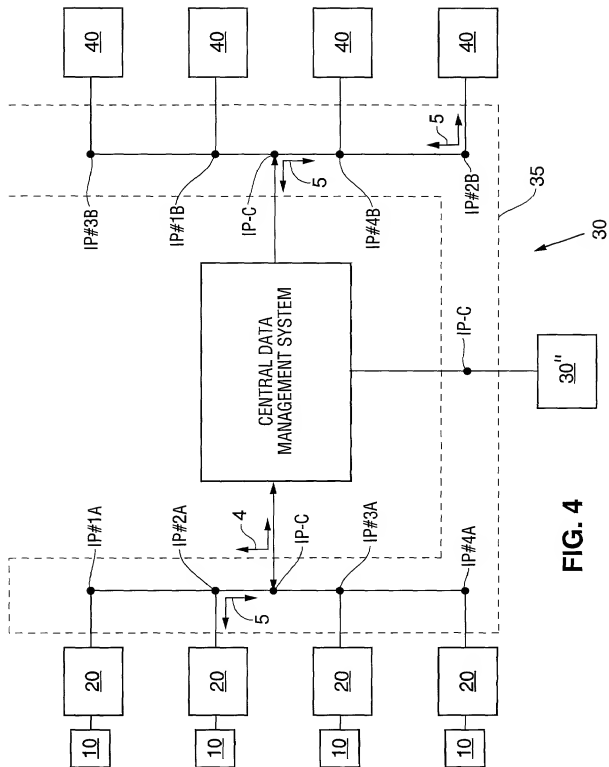


FIG. 4

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MEDICAL IMAGING SYSTEM AT  
IMAGING CENTER PRODUCES ELECTRONIC  
RECORD WITH ELECTRONIC IMAGE

ELECTRONIC RECORD ACQUIRED  
BY LOCAL IMAGE WORKSTATION  
LOCALLY INTERFACES WITH  
MEDICAL IMAGING SYSTEM AT  
IMAGING CENTER

E-RECORD IN  
DICOM  
FORMAT  
?

NO

CONVERT TO DICOM  
AT LOCAL IMAGE  
WORKSTATION

YES

RIS  
INFORMATION  
DESIRED IN ELECTRONIC  
RECORD  
?

YES

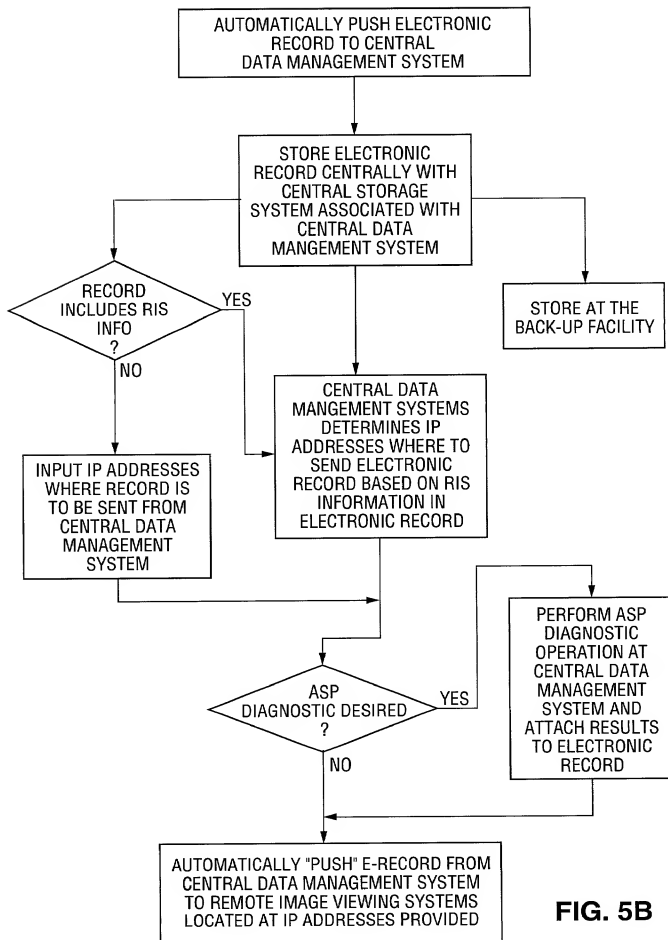
LOCAL IMAGE WORKSTATION  
ACQUIRE RIS SOFTWARE VIA  
ASP ON CENTRAL DATA  
MANAGEMENT SYSTEM

NO

ADD IP ADDRESSES (FOR WHERE  
IMAGE IS TO BE SENT) TO  
ELECTRONIC RECORD AT LOCAL  
IMAGE WORKSTATION

AUTOMATICALLY "PUSH"  
ELECTRONIC RECORD  
TO DESIGNATED IP ADDRESSES

FIG. 5A



**FIG. 5B**

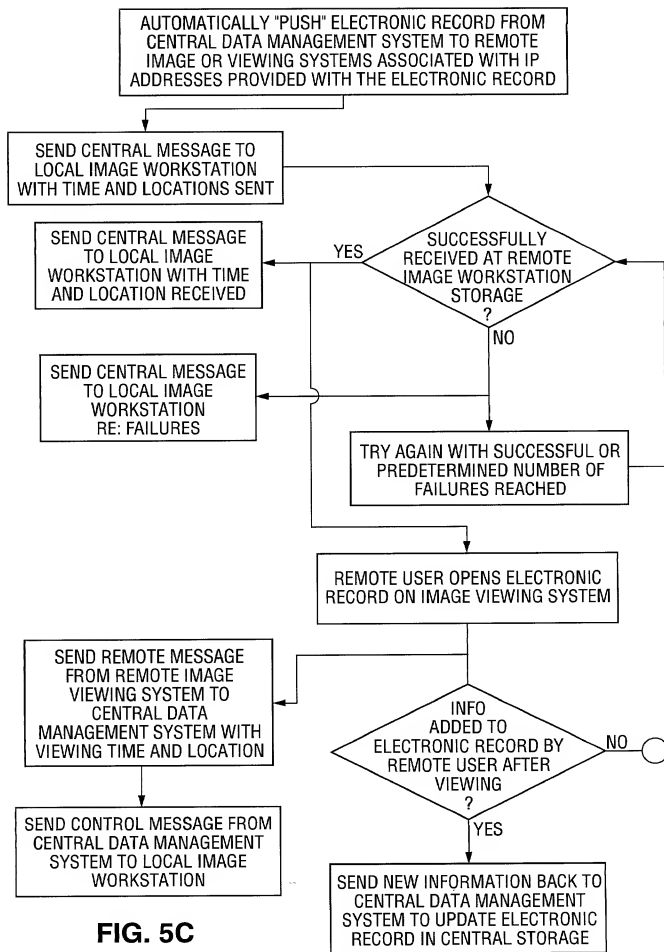


FIG. 5C

```

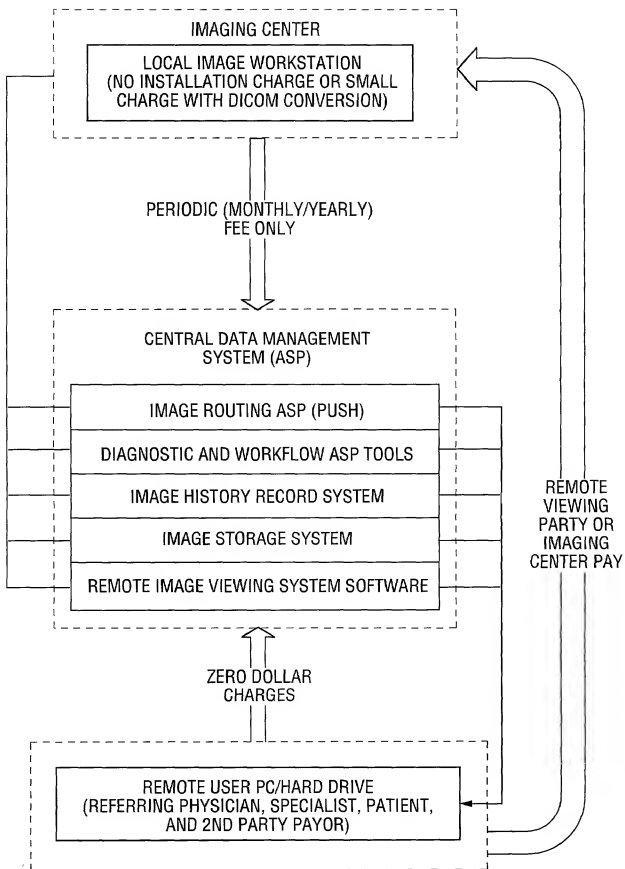
graph TD
    A[INFORMATION ADDED TO ELECTRONIC RECORD BY  
REMOTE USER AFTER VIEWING ELECTRONIC IMAGE] --> B[NEW INFORMATION SENT BACK TO CENTRAL  
DATA MANAGEMENT SYSTEM TO UPDATE  
ELECTRONIC RECORD IN CENTRAL STORAGE]
    B --> C{NEW  
INFORMATION  
CONTAINS IP ADDRESSES  
FOR WHERE NEW INFORMATION  
IS TO BE SENT OTHER THAN AT  
CENTRAL DATA  
MANAGEMENT  
SYSTEM  
?}
    C -- NO --> D[SEND CENTRAL MESSAGE  
FROM CENTRAL DATA  
MANAGEMENT SYSTEM TO  
LOCAL IMAGE WORKSTATION  
RE: NEW INFORMATION]
    C -- YES --> E{IP  
ADDRESS ALREADY  
SENT ELECTRONIC RECORD  
PRIOR TO NEW  
INFO?}
    E -- NO --> F[SEND ELECTRONIC RECORD  
FROM CENTRAL DATA  
MANAGEMENT SYSTEM TO  
REMOTE IMAGE VIEWING  
SYSTEM AT IP ADDRESS WITH  
NEW INFORMATION]
    E -- YES --> G[SEND UPDATE TO IP  
ADDRESS TO UPDATE  
ELECTRONIC RECORD AT  
REMOTE IMAGE VIEWING  
SYSTEM THERE]
    D --> H[SEND CENTRAL MESSAGE FROM CENTRAL  
DATA MANAGEMENT SYSTEM TO LOCAL  
IMAGE WORKSTATION RE: LOCATION, TIME  
AND PATIENT INFORMATION  
RE: TRANSMISSION OF NEW INFORMATION]
    F --> H
    G --> H
  
```

**FIG. 5D**

**FIG. 5D**



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**FIG. 6**

```

graph TD
    301[RECEIVE AND STORE DATA  
AT DATA CENTER AND IN DATA  
QUEUE] --> 302[DELIVER DATA TO  
DESTINATIONS BASED ON  
INFORMATION IN THE LOOK  
UP TABLE]
    302 --> 303{IS  
DELIVERY  
COMPLETE  
?}
    303 -- YES --> 304[UPDATE DELIVERY  
STATUS DATABASE AND  
REMOVE FROM QUEUE]
    304 --> STOP([STOP])
    303 -- NO --> 305[UPDATE  
DELIVERY STATUS  
DATABASE]
    305 --> 306{REQUEST  
FOR DATA  
RECEIVED  
?}
    306 -- YES --> 307[DELIVER DATA]
    307 --> 303
    306 -- NO --> 305
  
```

**FIG. 7**

**FIG. 7**

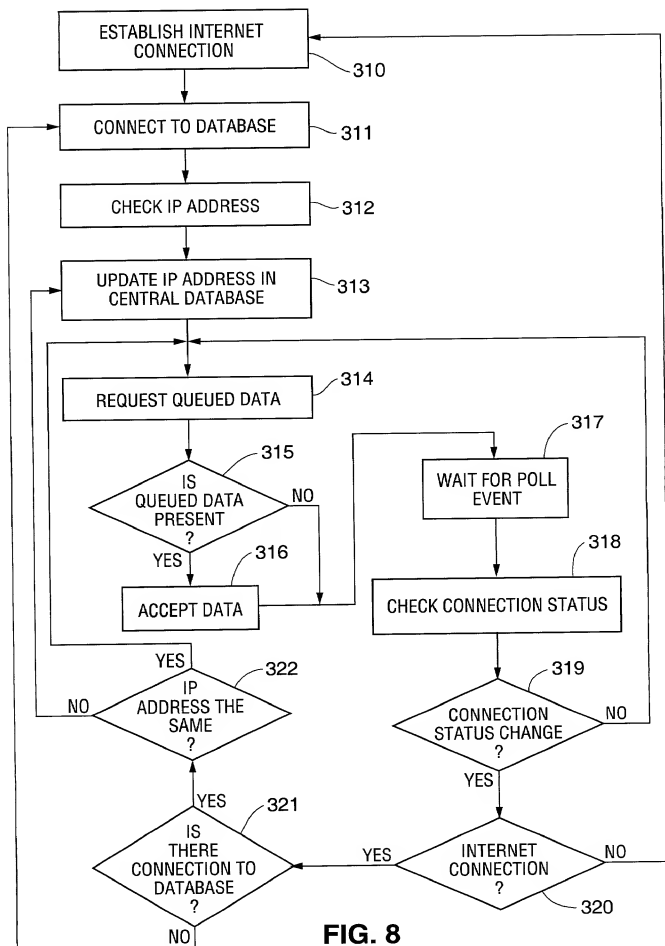


FIG. 8

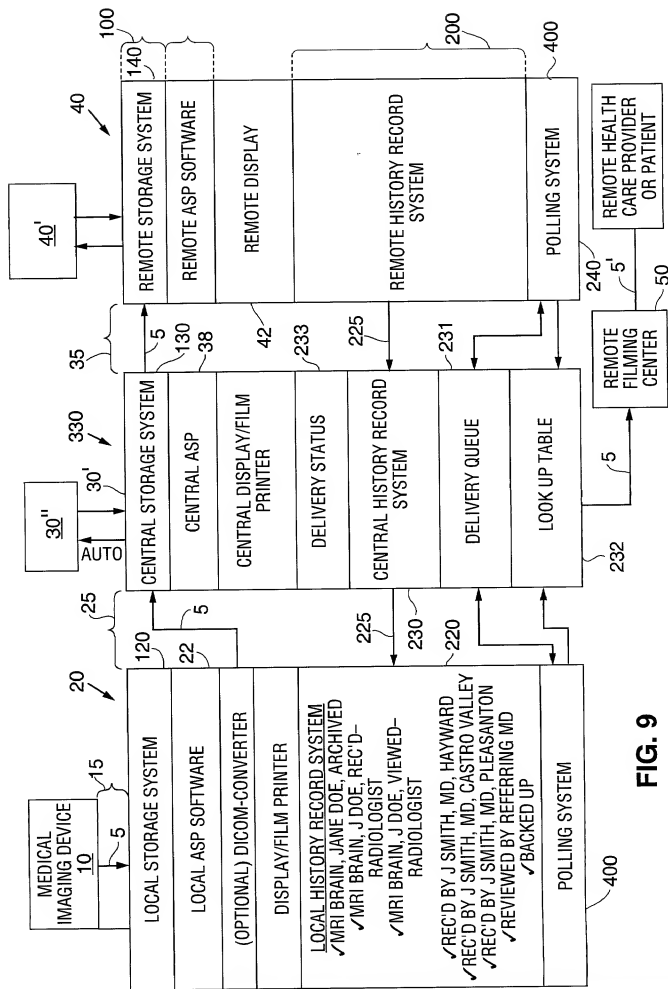
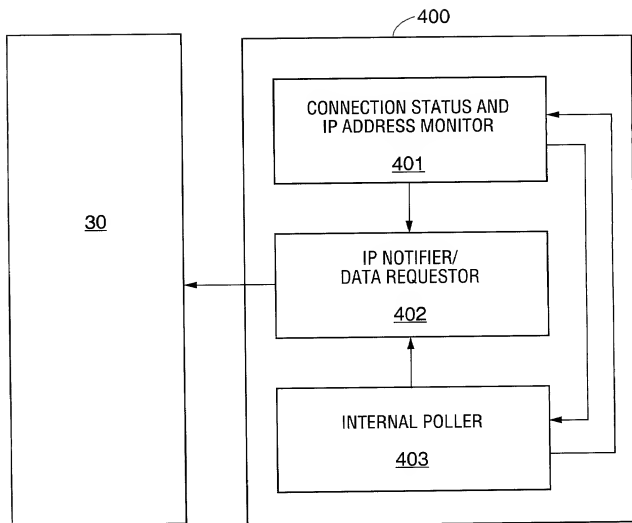


FIG. 9

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**FIG. 10**

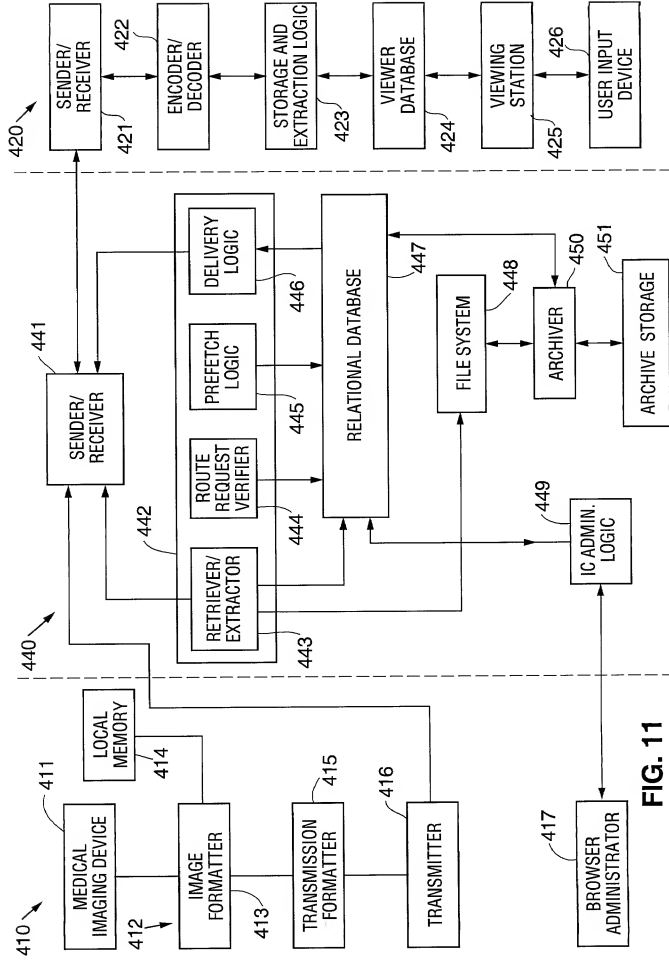
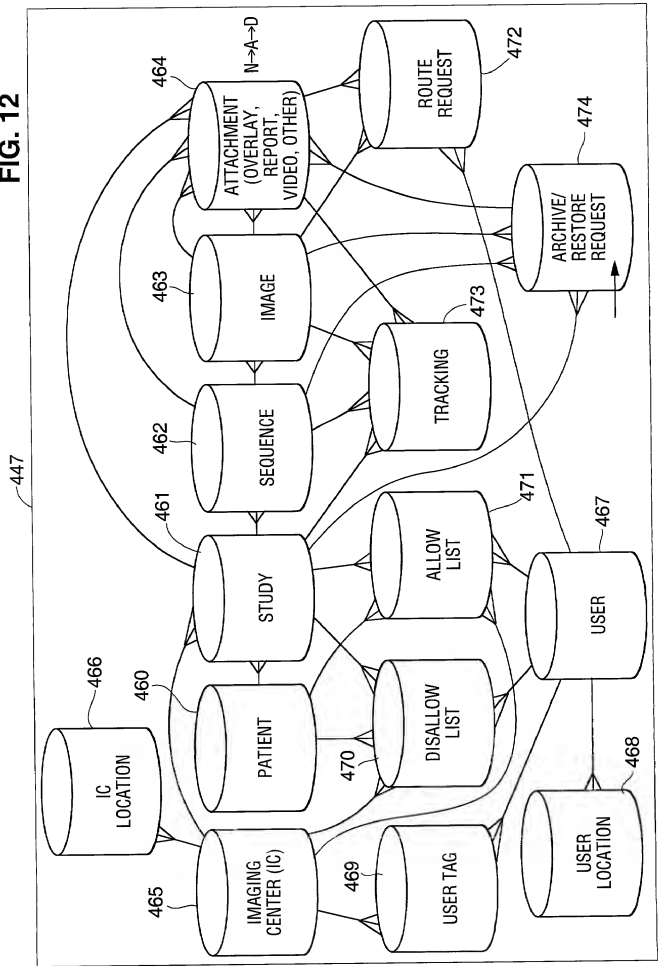


FIG. 11

FIG. 12



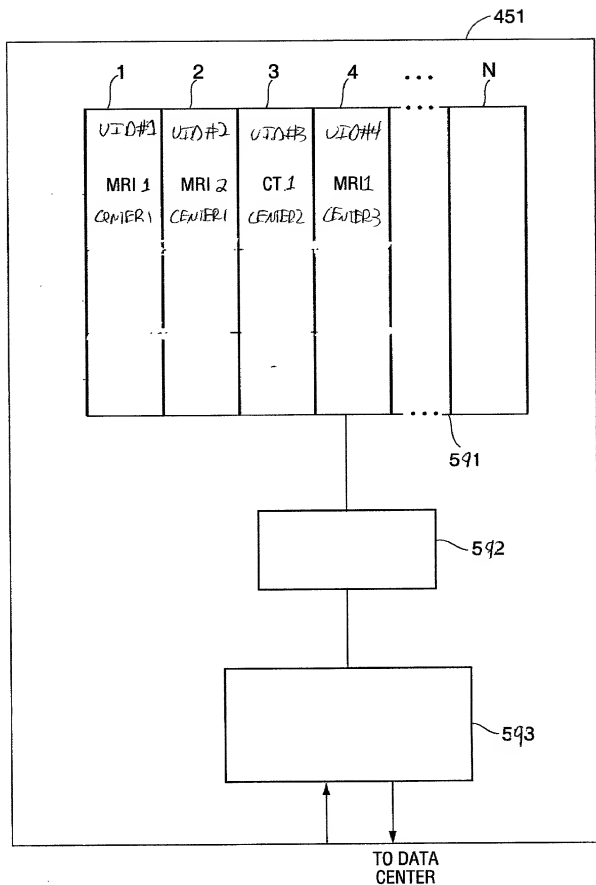
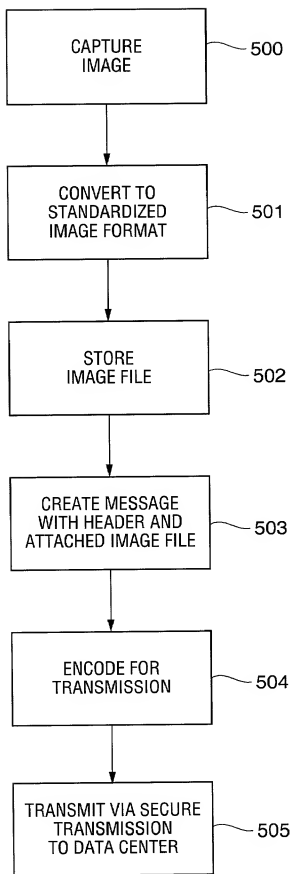
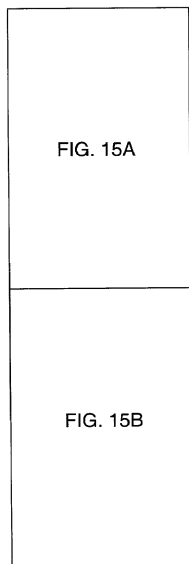


FIG. 13





**FIG. 14**



**FIG. 15**

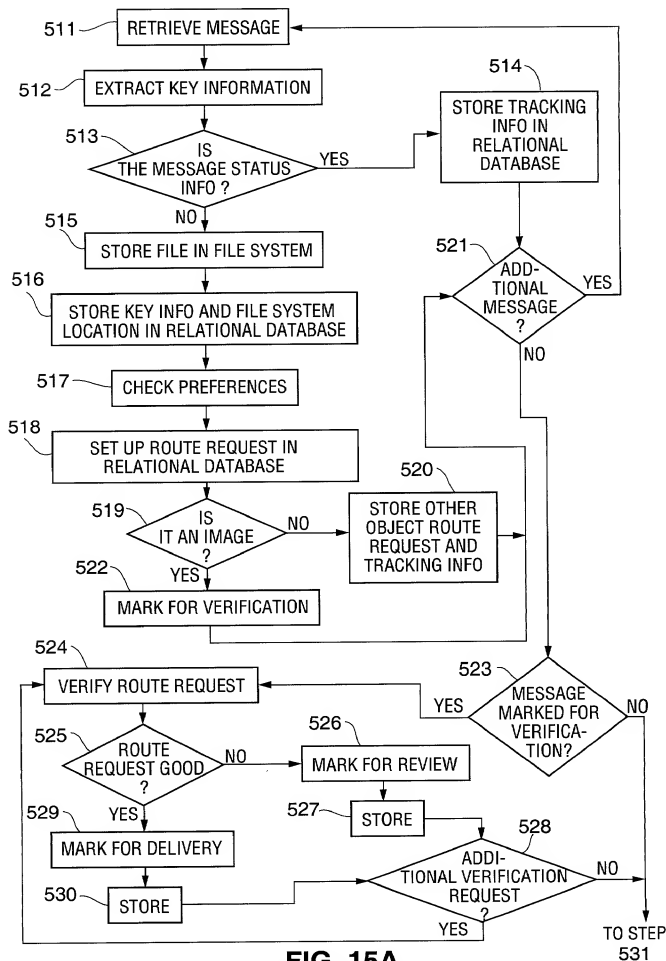
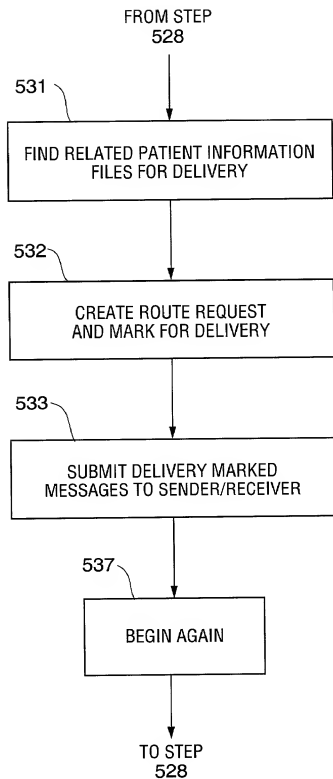
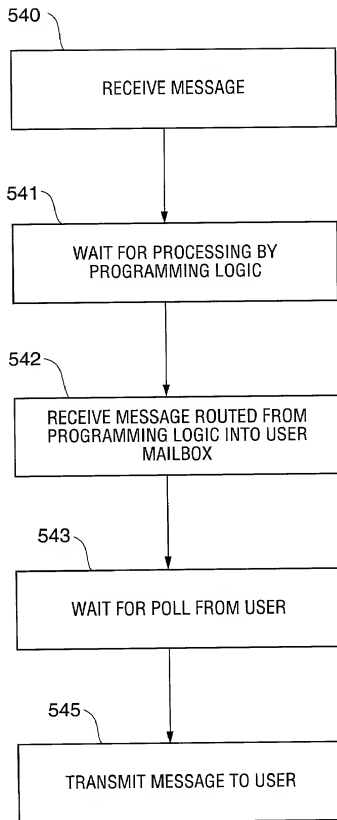


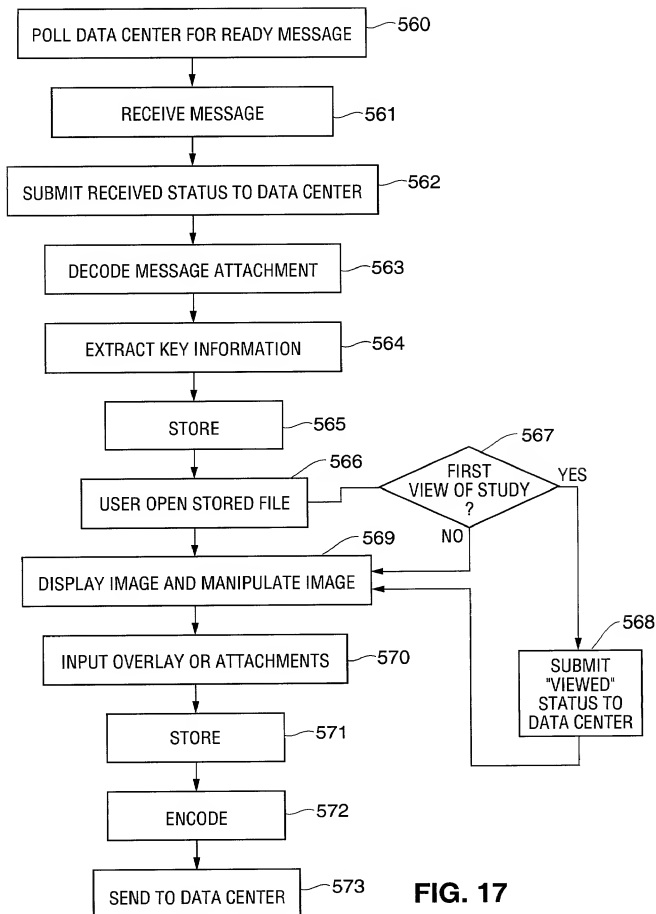
FIG. 15A



**FIG. 15B**



**FIG. 16**



**FIG. 17**

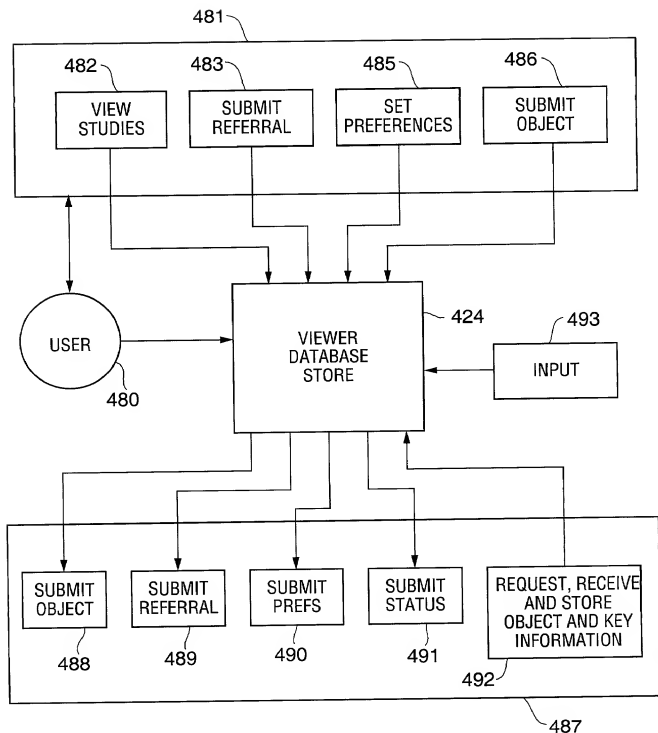


FIG. 18

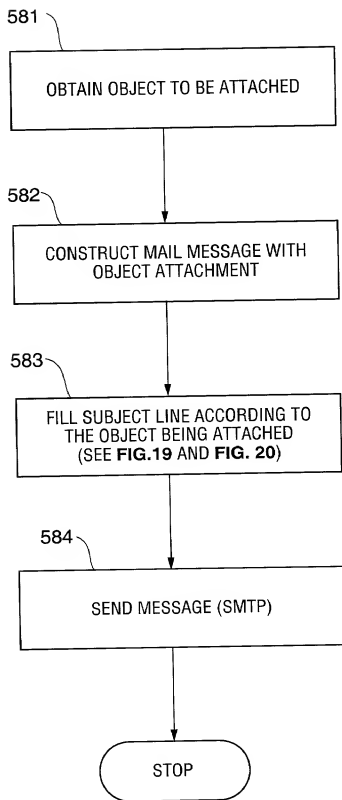
To	From	Subject	Contents
Data Center to viewer			
A	user@radvault.com	dc@radvault.com	image imageuid
B	user@radvault.com	dc@radvault.com	new report guid for studyuid
C	user@radvault.com	dc@radvault.com	del report guid for studyuid
D	user@radvault.com	dc@radvault.com	new overlay guid for imageuid
			CArchive overlay file

FIG. 19

To	From	Subject	Contents
Viewer to Data Center			
A	dc@radvault.com	user@radvault.com	new report guid for studyuid
B	dc@radvault.com	user@radvault.com	del report guid for studyuid
C	dc@radvault.com	user@radvault.com	new overlay guid for imageuid
D	dc@radvault.com	user@radvault.com	status image received imageuid
E	dc@radvault.com	user@radvault.com	status image viewed imageuid
F	dc@radvault.com	user@radvault.com	status overlay received guid for imageuid
G	dc@radvault.com	user@radvault.com	status report received guid for studyuid
H	dc@radvault.com	user@radvault.com	status report failed guid for studyuid
I	dc@radvault.com	user@radvault.com	status overlay failed guid for imageuid
			(Empty)
			Native report file
			(Empty)
			CArchive ovl file
			(Empty)
			(Empty)
			(Empty)
			(Empty)
			(Empty)
			(Empty)

FIG. 20





**FIG. 21**